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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/849,033

05/20/2004

Werner Lechner

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EXAMINER

TRAN, BINH Q

ART UNIT

PAPER NUMBER

3748

DATE MAILED: 01/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/849,033

Applicant(s)

LECHNER, WERNER

Examiner

BINH Q. TRAN

Art Unit

3748

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. ____.  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>05/20/2004</u> .  | 6) <input type="checkbox"/> Other: ____.                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

*Claims 1-15 are rejected under 35 U.S.C. 102 (b) as being anticipated by Price et al. (Price) (Patent Number 5,806,304).*

Regarding claims 1, 7, and 15, Price discloses an apparatus and method for a motor vehicle with a cryotank (12) for supplying an internal combustion engine (38), comprising an exhaust gas system (5) including an exhaust gas catalyzer (1), a device (e.g. 10, 47) for the combustion of boil-off gas from the cryotank, a gas duct (e.g. 6), and a nozzle (e.g. 2), wherein

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the nozzle is configured to introduce the boil-off gas in the manner of an ejector pump (e.g. 3) into the gas duct which draws at least one of environmental air and scavenging air from a fuel supply system (e.g. 12, 13, 14), and wherein the gas duct discharges near the exhaust gas catalyzer into the exhaust gas system (e.g. See col. 7, lines 20-65; col. 10, lines 33-67; col. 11, lines 1-25).

Regarding claims 2, and 8, Price further discloses that the gas duct discharges into the exhaust system such that during the operation of the internal combustion engine gases are drawn from the gas duct into the exhaust gas system (e.g. See col. 7, lines 20-65; col. 10, lines 33-67; col. 11, lines 1-25).

Regarding claims 3, and 9, Price further discloses that the boil-off gas in a unburned or burned condition is introduced into the exhaust gas system upstream either from the exhaust gas catalyzer or into the exhaust gas catalyzer (e.g. See col. 7, lines 20-65; col. 10, lines 33-67; col. 11, lines 1-25).

Regarding claims 4, and 10, Price further discloses that the an independent burning device, wherein the boil-off gas is burned in the independent burning device whose waste heat is fed at least partially to the exhaust system and especially to the exhaust gas catalyzer provided therein (e.g. See col. 7, lines 20-65; col. 10, lines 33-67; col. 11, lines 1-25).

Regarding claims 5, and 12, Price further discloses that the boil-off gas in a unburned or burned condition is introduced into the exhaust gas system upstream either from the exhaust gas catalyzer or into the exhaust gas catalyzer (e.g. See col. 7, lines 20-65; col. 10, lines 33-67; col. 11, lines 1-25).

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Regarding claims 6, and 13, Price further discloses that the an independent burning device, wherein the boil-off gas is burned in the independent burning device whose waste heat is fed at least partially to the exhaust system and especially to the exhaust gas catalyzer provided therein (e.g. See col. 10, lines 33-67; col. 11, lines 1-25).

Regarding claims 11, and 14, Price further discloses that the waste heat is fed to the exhaust gas catalyzer provided therein (e.g. See col. 7, lines 20-65; col. 10, lines 33-67; col. 11, lines 1-25).

***Claims 1-15 are rejected under 35 U.S.C. 102 (b) as being anticipated by Pettit et al. (Pettit) (Patent Number 5,353,590).***

Regarding claims 1, 7, and 15, Pettit discloses an apparatus and method for a motor vehicle with a cryotank (20) for supplying an internal combustion engine (10), comprising an exhaust gas system (14) including an exhaust gas catalyzer (e.g. 12), a device (e.g. 16) for the combustion of boil-off gas from the cryotank, a gas duct (e.g. 30, 38), and a nozzle (e.g. 24, 26), wherein the nozzle is configured to introduce the boil-off gas in the manner of an ejector pump into the gas duct which draws at least one of environmental air and scavenging air from a fuel supply system (e.g. Fig. 1), and wherein the gas duct discharges near the exhaust gas catalyzer into the exhaust gas system (e.g. See col. 2, lines 51-67; cols. 3-4, lines 1-67; col. 5, lines 1-34).

Regarding claims 2, and 8, Pettit further discloses that the gas duct discharges into the exhaust system such that during the operation of the internal combustion engine gases are drawn from the gas duct into the exhaust gas system (e.g. See col. 2, lines 51-67; cols. 3-4, lines 1-67; col. 5, lines 1-34).

Regarding claims 3, and 9, Pettit further discloses that the boil-off gas in a unburned or burned condition is introduced into the exhaust gas system upstream either from the exhaust gas catalyzer or into the exhaust gas catalyzer (e.g. See col. 2, lines 51-67; cols. 3-4, lines 1-67; col. 5, lines 1-34).

Regarding claims 4, and 10, Pettit further discloses that the an independent burning device, wherein the boil-off gas is burned in the independent burning device whose waste heat is fed at least partially to the exhaust system and especially to the exhaust gas catalyzer provided therein (e.g. See col. 2, lines 51-67; cols. 3-4, lines 1-67; col. 5, lines 1-34).

Regarding claims 5, and 12, Pettit further discloses that the boil-off gas in a unburned or burned condition is introduced into the exhaust gas system upstream either from the exhaust gas catalyzer or into the exhaust gas catalyzer (e.g. See col. 2, lines 51-67; cols. 3-4, lines 1-67; col. 5, lines 1-34).

Regarding claims 6, and 13, Pettit further discloses that the an independent burning device, wherein the boil-off gas is burned in the independent burning device whose waste heat is fed at least partially to the exhaust system and especially to the exhaust gas catalyzer provided therein (e.g. See col. 2, lines 51-67; cols. 3-4, lines 1-67; col. 5, lines 1-34).

Regarding claims 11, and 14, Pettit further discloses that the waste heat is fed to the exhaust gas catalyzer provided therein (e.g. See col. 2, lines 51-67; cols. 3-4, lines 1-67; col. 5, lines 1-34).

#### ***Prior Art***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure and consists of five patents:

Heuer (Pat. No. 5544483), Zimmer et al. (Pat. No. 6250073), Wirmark (Pat. No. 6122908), Asmus et al. (Pat. No. 6898929), and Hamazaki (Pat. No. 5272873) all discloses an exhaust gas purification for use with an internal combustion engine.

*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Binh Tran whose telephone number is (571) 272-4865. The examiner can normally be reached on Monday-Friday from 8:00 a.m. to 4:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion, can be reach on (571) 272-4859. The fax phone numbers for the organization where this application or proceeding is assigned are (571) 273-8300 for regular communications and for After Final communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BT  
January 20, 2006



Binh Q. Tran  
Patent Examiner  
Art Unit 3748